

PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:
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PCT

WRITTEN OPINION

(PCT Rule 66)

Applicant's or agent's file reference 81039WQ		Date of Mailing (day/month/year) 20 AUG 2003
International application No. PCT/US02/34332		REPLY DUE within 2 months/days from the above date of mailing
International filing date (day/month/year) 25 October 2002 (25.10.2002)	Priority date (day/month/year) 25 October 2001 (25.10.2001)	
International Patent Classification (IPC) or both national classification and IPC IPC(7): H04B 7/26 and US Cl.: 455/15, 16		
Applicant QUALCOMM INCORPORATED		

1. This written opinion is the first (first, etc.) drawn by this International Preliminary Examining Authority.
2. This opinion contains indications relating to the following items:
 - I ☒ Basis of the opinion
 - II ☐ Priority
 - III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
 - IV ☐ Lack of unity of invention
 - V ☒ Reasoned statement under Rule 66.2 (a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - VI ☒ Certain documents cited
 - VII ☐ Certain defects in the international application
 - VIII ☒ Certain observations on the international application
3. The applicant is hereby invited to reply to this opinion.

When? See the time limit indicated above. ~~The applicant may, before the expiration of that time limit, request this Authority to grant an extension. See rule 66.2(d).~~

How? By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.

Also For an additional opportunity to submit amendments, see Rule 66.4.
For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4 bis.
For an informal communication with the examiner, see Rule 66.6

If no reply is filed, the international preliminary examination report will be established on the basis of this opinion.
4. The final date by which the international preliminary examination report must be established according to Rule 69.2 is: **25 February 2005 (25.02.2005)**

Name and mailing address of the IPEA/US Mail Stop PCT, Attn: IPEA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703)305-3230	Authorized officer Tishany Lele Telephone No. (703) 305-3462
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I. Basis of the opinion

1. With regard to the elements of the international application:*

- ☒ the international application as originally filed
- ☒ the description:
 pages 1-8 _____, as originally filed
 pages NONE _____, filed with the demand
 pages NONE _____, filed with the letter of _____
- ☒ the claims:
 pages 9-15 _____, as originally filed
 pages NONE _____, as amended (together with any statement) under Article 19
 pages NONE _____, filed with the demand
 pages NONE _____, filed with the letter of _____
- ☒ the drawings:
 pages 1-6 _____, as originally filed
 pages NONE _____, filed with the demand
 pages NONE _____, filed with the letter of _____
- ☐ the sequence listing part of the description:
 pages NONE _____, as originally filed
 pages NONE _____, filed with the demand
 pages NONE _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the written opinion was drawn on the basis of the sequence listing:

- ☐ contained in the international application in printed form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages NONE _____
- ☐ the claims, Nos. NONE _____
- ☐ the drawings, sheets/fig NONE _____

5. ☐ This opinion has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed."

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V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. STATEMENT

Novelty (N)	Claims	<u>Please See Continuation Sheet</u>	YES
	Claims	<u>Please See Continuation Sheet</u>	NO
Inventive Step (IS)	Claims	<u>Please See Continuation Sheet</u>	YES
	Claims	<u>Please See Continuation Sheet</u>	NO
Industrial Applicability (IA)	Claims	<u>Please See Continuation Sheet</u>	YES
	Claims	<u>Please See Continuation Sheet</u>	NO

2. CITATIONS AND EXPLANATIONS

Claims 1,11,21,31,32, and 40, lack novelty under PCT Article 33(2) as being anticipated by Wickman (Wickman, US Patent No 5,910,943).

Regarding claims 1,11,21,31,32, and 40, Wickman teaches of a method, apparatus, means, and program storage device of of identifying remote communications transmitted via a repeater, comprising the steps of: receiving a signal transmission from a remote station; determining if the signal transmission includes a discriminant applied to the signal transmitted from the remote station; and designating the signal transmission as being transmitted via the repeater if the signal transmission includes the discriminant (abstract and starting column 2, line 64 and ending column 3, line 5).

Claims 2 - 4, 6, 10, 12,13, 15, 16, 20, 22, 23, 26, 30, 33 - 35, 37, 39, 41 - 44, 46, an 48 meet the criteria set out in PCT Article 33(2)-(3) because the prior art does not teach or fairly suggest the use of wherein the discriminant comprises a modulation (PM, FM, or AM) applied to the signal transmission from the remote station, transmission from a plurality of repeaters, and the discriminant is unique to each of the plurality of repeaters, or wherein the discriminant comprises a code.

----- NEW CITATIONS -----
NONE

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VI. Certain document cited

1. Certain published documents (Rule 70.10)

Application No <u>Patent No.</u>	Publication Date <u>(day/month/year)</u>	Filing Date <u>(day/month/year)</u>	Priority Date (valid claim) <u>(day/month/year)</u>
6,501,955 B1	31 December 2002 (31.12.2002)	19 June 2000 (19.06.2000)	None

2. Non-written disclosures (Rule 70.9)

<u>Kind of non-written disclosure</u>	Date of non-written disclosure <u>(day/month/year)</u>	Date of written disclosure referring to non-written disclosure <u>(day/month/year)</u>

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VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the questions whether the claims are fully supported by the description, are made:

Claims 5, 7-9, 14, 17 - 19, 24, 25, 27 - 29, 36, 38, 45, and 47 are objected to as lacking clarity under PCT Rule 66.2(a)(v) because claims 5, 7-9, 14, 17 - 19, 24, 25, 27 - 29, 36, 38, 45, and 47 are not fully supported by the description. The description does not disclose the claimed invention in a manner sufficiently clear and complete for the claimed invention to be carried out by a person skilled in the art because:

Regarding claims 5, 14, 24, 36, and 45, it was not understood what was meant by the limitation, "delay modulation," as modulation generally refers to varying an electrical parameter of an electromagnetic wave (phase, amplitude, or frequency) to impart information onto that wave. If it was to be assumed that the entire signal was to be delayed (possibly from Figure 6 and page 6 paragraph 0030), note further that for such a concept to be realized, some time reference would be required as delay is arbitrary, dependant upon several factors (for example, the medium of transmission or the multi-paths involved in the radio environment) and thus such a "modulation" would need to be understood ("de-modulated") with respect to some standardized time reference (none was noted in the specification) and hence it was not understood how "delay modulation" could work as specified.

Claim 25 was rejected for at least those reasons least those recited for dependent claim 24.

Regarding claims 7 - 9, 17 - 19, and 27 - 29, the limitation, "amplitude modulation is applied to the signal transmission by performing the step of varying a gain of the amplifier" was not specifically described in the Applicant's specification. Applicant describes the employment of AM modulation (page 6, paragraph 0029 and Figure 5), but this recitation does not describe the claimed. Note further, it was not understood how the description from the specification employed amplitude modulation, as the return link 122B would merely be routed to the load (and then either to ground or reflected, as the load was unspecified as well) as stated.

Regarding claims 38 and 47, the limitation, "amplitude modulation performed at a frequency higher than the closed-loop bandwidth of the power control system," was not specifically described in the Applicant's specification. Applicant describes "the frequencies of the added discriminant is sufficiently attenuated by the closed loop response of the power control system 1002 so that the power command is effectively non-existent or negligible" on pages 7 - 8 (paragraph 0039) but does not detail how amplitude modulation "is performed at a higher frequency" (note that amplitude modulation varies the amplitude of a carrier and hence how AM "is performed at a higher frequency" was not understood or clearly defined in the specification)

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Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

TIME LIMIT:

The time limit set for response to a Written Opinion may not be extended. 37 CFR 1.484(d). Any response received after the expiration of the time limit set in the Written Opinion will not be considered in preparing the International Preliminary Examination Report.

V.I. Reasoned Statements:

The opinion as to Novelty was positive (Yes) with respect to claims 2-10, 12-20, 22-30, 33-39, 41-48

The opinion as to Novelty was negative (No) with respect to claims 1, 11, 21, 31, 32, 40

The opinion as to Inventive Step was positive (Yes) with respect to claims 2-10, 12-20, 22-30, 33-39, 41-48

The opinion as to Inventive Step was negative (NO) with respect to claims 1, 11, 21, 31, 32, 40

The opinion as to Industrial Applicability was positive (YES) with respect to claims 1-48

The opinion as to Industrial Applicability was negative (NO) with respect to claims NONE